

AMENDMENTS TO THE CLAIMS:

1. (Currently Amended) A spinal construct for engagement with adjacent vertebral bodies, comprising:

a spinal implant comprising an intervertebral fusion device cage including one or more openings configured to promote fusion with the adjacent vertebral bodies, said spinal implant extending along a longitudinal axis and having a first transverse dimension sized for insertion within an intervertebral space between the adjacent vertebral bodies and a second transverse dimension greater than said first transverse dimension and corresponding to a select height of said intervertebral space; and

an elongate member sized to span the intervertebral space and a plurality of bone anchors extending transversely from said elongate member and into engagement with the adjacent vertebral bodies to establish said select height of the intervertebral space and to maintain said select height as said spinal implant is transitioned from said first transverse dimension to said second transverse dimension along said select height to thereby provide controlled compression of said spinal implant.

2. (Currently Amended) A spinal construct for engagement with adjacent vertebral bodies, comprising:

a spinal implant extending along a longitudinal axis and including:

a first pair of side surfaces spaced apart and arranged generally opposite one another to define a first transverse dimension sized for insertion within an intervertebral space between the adjacent vertebral bodies; and

a second pair of side surfaces spaced apart and arranged generally opposite one another to define a second transverse dimension greater than said first transverse dimension and corresponding to a select height of said intervertebral space, wherein said spinal implant comprises:

an intervertebral fusion device including a hollow interior with openings

extending through said second pair of side surfaces and in communication with said hollow interior; and

a bone growth promoting material positioned within said hollow interior to facilitate fusion with the adjacent vertebral bodies; and

an elongate member sized to span the intervertebral space and a plurality of bone anchors extending transversely from said elongate member and into engagement with the adjacent vertebral bodies to establish said select height of the intervertebral space and to maintain said select height of the intervertebral space, said spinal implant being rotatable relative to said elongate member about said longitudinal axis to align said second transverse dimension along said select height of the intervertebral space to thereby provide controlled compression of said spinal implant.

3. (Original) The spinal construct of claim 2, wherein said second pair of side surfaces are arranged substantially parallel to one another.

4. (Withdrawn) The spinal construct of claim 2, wherein said second pair of side surfaces are angled relative to one another to define a taper extending along said longitudinal axis corresponding to the natural lordotic angle between the adjacent vertebral bodies.

5. (Withdrawn) The spinal construct of claim 2, wherein said first pair of side surfaces are angled relative to one another to define a taper extending along said longitudinal axis to facilitate insertion of said spinal implant within the intervertebral space between the adjacent vertebral bodies.

6. (Original) The spinal construct of claim 2, wherein said spinal implant has a substantially rectangular transverse cross section and includes a transitional surface at diagonally opposite corner portions of said spinal implant extending between said first pair of side surfaces and said second pair of side surfaces to facilitate rotation of said spinal implant within the intervertebral space about said longitudinal axis.

7. (Original) The spinal construct of claim 6, wherein said transitional surface comprises a rounded surface.

8. (Original) The spinal construct of claim 1, wherein said first transverse dimension is oriented substantially perpendicular to said second transverse dimension.

9. (Original) The spinal construct of claim 1, wherein said spinal implant is engaged with said elongate member to allow selective rotation of said spinal implant relative to said elongate member about said longitudinal axis, said selective rotation of said spinal implant serving to transition said first transverse dimension to said second transverse dimension along said select height of the intervertebral space.

10. (Original) The spinal construct of claim 1, further comprising an interlock between said spinal implant and said elongate member to selectively prevent at least one of rotational and lateral movement of said spinal implant relative to said elongate member subsequent to alignment of said second transverse dimension along said select height of the intervertebral space.

11. (Original) The spinal construct of claim 10, wherein said interlock prevents both rotational and lateral movement of said spinal implant relative to said elongate member.

12. (Original) The spinal construct of claim 10, wherein said interlock comprises:
at least one projection portion extending from one of said spinal implant and said elongate member; and

at least one aperture defined by another of said spinal implant and said elongate member;
and

wherein insertion of said at least one projection portion into a respective one of said at least one aperture prevents said at least one of rotational and lateral movement of said spinal

implant relative to said elongate member.

13. (Original) The spinal construct of claim 12, further comprising a fastener; and wherein insertion of said at least one projection portion into said respective one of said at least one aperture is accomplished by engagement of said fastener between said elongate member and said spinal implant.

14. (Original) The spinal construct of claim 13, wherein said elongate member includes a passage extending therethrough and said spinal implant includes a threaded opening; and

wherein said engagement comprises inserting said fastener through said passage in said elongate member and threading said fastener into said threaded opening in said spinal implant.

15. (Original) The spinal construct of claim 12, wherein said spinal implant is rotatably engaged with said elongate member to allow rotation of said spinal implant relative to said elongate member about said longitudinal axis, said at least one projection portion and said at least one aperture each being offset from said longitudinal axis.

16. (Withdrawn) The spinal construct of claim 12, wherein said interlock comprises: at least two projection portions extending from said one of said spinal implant and said elongate member; and at least two apertures defined by said another of said spinal implant and said elongate member; and

wherein insertion of said at least two projection portions into respective ones of said at least two apertures prevents said at least one of rotational and lateral movement of said spinal implant relative to said elongate member.

17. (Previously Presented) A spinal construct for engagement with adjacent vertebral bodies, comprising:
a spinal implant comprising a fusion cage extending along a longitudinal axis and having

a first transverse dimension sized for insertion within an intervertebral space between the adjacent vertebral bodies and a second transverse dimension greater than said first transverse dimension and corresponding to a select height of said intervertebral space;

a bone growth promoting material positioned within said fusion cage to facilitate fusion with the adjacent vertebral bodies; and

an elongate member sized to span the intervertebral space and a plurality of bone anchors extending transversely from said elongate member and into engagement with the adjacent vertebral bodies to establish said select height of the intervertebral space and to maintain said select height as said spinal implant is transitioned from said first transverse dimension to said second transverse dimension along said select height to thereby provide controlled compression of said spinal implant.

18. (Original) The spinal construct of claim 17, wherein said bone growth promoting material comprises a bone morphogenic protein.

19. (Original) The spinal construct of claim 1, wherein an axially facing portion of said spinal implant defines at least two tool engaging elements sized and configured for engagement with corresponding portions of a manipulation tool to facilitate rotation of said spinal implant within said intervertebral space about said longitudinal axis.

20. (Original) The spinal construct of claim 19, wherein said tool engaging elements are apertures and wherein said corresponding portions of said manipulation instrument comprise a pair of prongs sized and configured for insertion into said apertures.

21. (Original) The spinal construct of claim 19, wherein said tool engaging elements are positioned diametrically opposite one another relative to said longitudinal axis.

22. (Original) The spinal construct of claim 21, wherein said elongate member defines a pair of arcuate slots positioned diametrically opposite one another relative to said

longitudinal axis, said arcuate slots being sized and configured to receive either of said tool engaging elements or said corresponding portions of said manipulation tool during rotation of said spinal implant about said longitudinal axis.

23. (Original) The spinal construct of claim 1, wherein said spinal implant has a substantially rectangular transverse cross section.

24. (Previously Presented) The spinal construct of claim 1, wherein said elongate member comprises a plate having first and second end portions and wherein said bone anchors comprise bone screws, said plate defining at least one opening adjacent each of said first and second end portions for receiving one of said bone screws therethrough for engaging said plate to the adjacent vertebral bodies.

25. (Currently Amended) A spinal implant assembly, comprising:
an intervertebral fusion ~~device~~ cage adapted for insertion into an intervertebral space between an adjacent pair of vertebral bodies and including one or more openings configured to promote fusion with the adjacent vertebral bodies, said device extending along a longitudinal axis and defining a primary transverse dimension and a secondary transverse dimension, said secondary transverse dimension sized for insertion into the intervertebral space, said primary transverse dimension sized greater than said secondary transverse dimension and corresponding to a select height of said intervertebral space; and

an elongate member sized to span the intervertebral space and a plurality of bone anchors extending transversely from said elongate member and into engagement with the adjacent vertebral bodies to establish said select height of the intervertebral space and to maintain said select height as said device is rotated about said longitudinal axis to align said primary transverse dimension along said select height to thereby provide controlled compression of said device.

26. (Currently Amended) A spinal implant assembly, comprising:
a device adapted for insertion into an intervertebral space between an adjacent pair of vertebral bodies, said device extending along a longitudinal axis and including:
a pair of primary side surfaces spaced apart and arranged generally opposite one another to define a primary transverse dimension; and
a pair of secondary side surfaces spaced apart and arranged generally opposite one another to define a secondary transverse dimension sized for insertion into the intervertebral space, said primary transverse dimension sized greater than said secondary transverse dimension and corresponding to a select height of said intervertebral space, wherein said device comprises:
an intervertebral fusion device including a hollow interior with openings extending through said second pair of side surfaces and in communication with said hollow interior; and
a bone growth promoting material positioned within said hollow interior to facilitate fusion with the adjacent vertebral bodies; and
an elongate member sized to span the intervertebral space and a plurality of bone anchors extending transversely from said elongate member and into engagement with the adjacent vertebral bodies to establish said select height of the intervertebral space and to maintain said select height of the intervertebral space, said device being rotatable relative to said elongate member about said longitudinal axis to align said primary transverse dimension along said select height of the intervertebral space to thereby provide controlled compression of said device.

27. (Previously Presented) The spinal implant assembly of claim 26, wherein said device has a substantially rectangular transverse cross section and includes a rounded transitional surface at diagonally opposite corner portions of said device extending between said pair of primary side surfaces and said pair of secondary side surfaces to facilitate rotation of said device within the intervertebral space about said longitudinal axis.

28. (Original) The spinal implant assembly of claim 25, wherein said primary transverse dimension is oriented substantially perpendicular to said secondary transverse

dimension.

29. (Original) The spinal implant assembly of claim 25, wherein said device is engaged with said elongate member to allow selective rotation of said device relative to said elongate member about said longitudinal axis, said selective rotation of said device serving to align said primary transverse dimension along said select height of the intervertebral space.

30. (Original) The spinal implant assembly of claim 25, further comprising an interlock between said device and said elongate member to selectively prevent at least one of rotational and lateral movement of said device relative to said elongate member subsequent to alignment of said primary transverse dimension along said select height of the intervertebral space.

31. (Original) The spinal implant assembly of claim 30, wherein said interlock comprises:

at least one projection portion extending from one of said device and said elongate member; and at least one aperture defined by another of said device and said elongate member; and

wherein insertion of said at least one projection portion into a respective one of said at least one aperture prevents said at least one of rotational and lateral movement of said device relative to said elongate member.

32. (Previously Presented) A spinal implant assembly, comprising:

a device comprising a fusion cage adapted for insertion into an intervertebral space between an adjacent pair of vertebral bodies, said device extending along a longitudinal axis and defining a primary transverse dimension and a secondary transverse dimension, said secondary transverse dimension sized for insertion into the intervertebral space, said primary transverse dimension sized greater than said secondary transverse dimension and corresponding to a select height of said intervertebral space;

a bone growth promoting material positioned within said fusion cage to facilitate fusion with the adjacent vertebral bodies; and

an elongate member sized to span the intervertebral space and a plurality of bone anchors extending transversely from said elongate member and into engagement with the adjacent vertebral bodies to establish said select height of the intervertebral space and to maintain said select height as said device is rotated about said longitudinal axis to align said primary transverse dimension along said select height to thereby provide controlled compression of said device.

33. (Original) The spinal implant assembly of claim 25, wherein said spinal implant has a parallelepiped configuration.

34. (Previously Presented) The spinal implant assembly of claim 25, wherein said elongate member comprises a plate having first and second end portions and wherein said bone anchors comprise bone screws, said plate defining at least one opening adjacent each of said first and second end portions for receiving one of said bone screws therethrough for engaging said plate to the adjacent vertebral bodies.

35.-62. (Cancelled)

63. (Currently Amended) The spinal construct of claim 1, wherein said intervertebral fusion ~~device~~ cage includes a hollow interior with said openings in communication with said hollow interior.

64. (Previously Presented) The spinal construct of claim 63, further comprising a bone growth promoting material positioned within said hollow interior to facilitate fusion with the adjacent vertebral bodies.

65. (Previously Presented) The spinal construct of claim 64, wherein said bone growth promoting material comprises a bone morphogenic protein.

66. (Currently Amended) The spinal construct of claim ~~1~~ 2, wherein said intervertebral fusion device comprises a fusion cage.

67. (Currently Amended) The spinal construct of claim 1, wherein said intervertebral fusion ~~device~~ cage is formed of a porous material to facilitate fusion with the adjacent vertebral bodies.

68. (Previously Presented) The spinal construct of claim 67, wherein said openings comprise pores defined by said porous material.

69. (Previously Presented) The spinal construct of claim 1, wherein said spinal implant includes:

a first pair of side surfaces spaced apart and arranged generally opposite one another to define said first transverse dimension; and

a second pair of side surfaces spaced apart and arranged generally opposite one another to define said second transverse dimension.

70. (Previously Presented) The spinal construct of claim 69, wherein said spinal implant is rotatable relative to said elongate member about said longitudinal axis to align said second transverse dimension along said select height of the intervertebral space.

71. (Previously Presented) The spinal construct of claim 70, wherein said spinal implant is rotatably coupled with said elongate member.

72.-73. (Cancelled)

74. (Currently Amended) The spinal construct of claim ~~72~~ 2, wherein said intervertebral fusion device is formed of a porous material to facilitate fusion with the adjacent

vertebral bodies.

75. (Previously Presented) The spinal construct of claim 2, wherein said first transverse dimension is oriented substantially perpendicular to said second transverse dimension.

76. (Previously Presented) The spinal construct of claim 2, wherein said spinal implant is rotatably coupled with said elongate member to allow selective rotation of said spinal implant relative to said elongate member about said longitudinal axis to align said second transverse dimension along said select height of the intervertebral space.

77. (Previously Presented) The spinal construct of claim 2, wherein said elongate member comprises a plate define a first opening overlapping one of the adjacent vertebral bodies and a second opening overlapping another of the adjacent vertebral bodies; and
wherein said bone anchors comprise bone screws extending through said first and second openings for engaging said plate to the adjacent vertebral bodies.

78. (Previously Presented) The spinal construct of claim 17, wherein said spinal implant includes:

a first pair of side surfaces spaced apart and arranged generally opposite one another to define said first transverse dimension; and

a second pair of side surfaces spaced apart and arranged generally opposite one another to define said second transverse dimension.

79. (Previously Presented) The spinal construct of claim 78, wherein said spinal implant is rotatable relative to said elongate member about said longitudinal axis to align said second transverse dimension along said select height of the intervertebral space to provide controlled compression of said spinal fusion implant.

80. (Previously Presented) The spinal construct of claim 79, wherein said spinal implant is rotatably coupled with said elongate member.

81. (Previously Presented) The spinal construct of claim 17, wherein said elongate member comprises a plate define a first opening overlapping one of the adjacent vertebral bodies and a second opening overlapping another of the adjacent vertebral bodies; and
wherein said bone anchors comprise bone screws extending through said first and second openings for engaging said plate to the adjacent vertebral bodies.

82. (Currently Amended) The spinal implant assembly of claim 25, wherein said intervertebral fusion ~~device~~ cage includes a hollow interior with said openings in communication with said hollow interior; and
a bone growth promoting material positioned within said hollow interior to facilitate fusion with the adjacent vertebral bodies.

83. (Currently Amended) The spinal implant assembly of claim ~~25~~ 26, wherein said intervertebral fusion device comprises a fusion cage.

84. (Currently Amended) The spinal implant assembly of claim 25, wherein said intervertebral fusion ~~device~~ cage is formed of a porous material to facilitate fusion with the adjacent vertebral bodies, said openings comprising pores defined by said porous material.

85. (Currently Amended) The spinal implant assembly of claim 25, wherein said intervertebral fusion ~~device~~ cage includes:

a first pair of side surfaces spaced apart and arranged generally opposite one another to define said secondary transverse dimension; and

a second pair of side surfaces spaced apart and arranged generally opposite one another to define said primary transverse dimension; and

wherein said intervertebral fusion device is rotatable relative to said elongate member

about said longitudinal axis to generally align said second pair of side surfaces with endplates of the adjacent vertebral bodies.

86.-87. (Cancelled)

88. (Previously Presented) The spinal implant assembly of claim 26, wherein said elongate member comprises a plate defining a first opening overlapping one of the adjacent vertebral bodies and a second opening overlapping another of the adjacent vertebral bodies; and wherein said bone anchors comprise bone screws extending through said first and second openings for engaging said plate to the adjacent vertebral bodies.

89. (Previously Presented) The spinal implant assembly of claim 32, wherein said device includes:

a first pair of side surfaces spaced apart and arranged generally opposite one another to define said primary transverse dimension; and

a second pair of side surfaces spaced apart and arranged generally opposite one another to define said secondary transverse dimension; and

wherein said device is rotatable relative to said elongate member about said longitudinal axis to align said second transverse dimension along said select height of the intervertebral space to provide controlled compression of said spinal fusion implant.

90. (Previously Presented) The spinal implant assembly of claim 32, wherein said elongate member comprises a plate defining a first opening overlapping one of the adjacent vertebral bodies and a second opening overlapping another of the adjacent vertebral bodies; and wherein said bone anchors comprise bone screws extending through said first and second openings for engaging said plate to the adjacent vertebral bodies.